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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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12/29/2005

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EXAMINER

CHANKONG, DOHM

ART UNIT

PAPER NUMBER

2152

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/045,556	BRABSON ET AL.	
	Examiner	Art Unit	
	Dohm Chankong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21, 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1> This action is in response to Applicant's amendment and arguments, filed 10.25.2005.

Claims 1-21 and 23 are presented for further examination.

2> This is a final rejection.

Response to Arguments

3> Applicant's arguments have been fully considered but they are not persuasive.

Additionally, Applicant's amendments do not substantially distinguish the present invention over the prior art references. The amended claims are now directed in part towards "determining at a currently-executing application, based on the analysis, whether the currently-executing application should modify a behavior of the currently executing application".

Rejection of claims 1 and 23 [as anticipated by Buhrke]

4> As set forth in the previous action, the prior art reference, Buhrke, provides a system for bandwidth and congestion management for terminals (currently-executing application) that are connected to switches. Applicant argues here that Buhrke's determination of functionality is located at the switch, and not the currently-executing application, as represented by Buhrke's terminal [see Applicant's arguments, page 7].

Applicant's characterization of Buhrke is not entirely accurate. The determination of whether the application should be modified takes place in both the terminal application and

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the switch [see Figure 2 | column 6 «lines 21-26»]. That is, the switch returns a proposed bandwidth estimate to the terminal [Figure 2 «item 216»]. This proposed estimate is part of the analysis process; the terminal application then goes about determining whether or not to accept the proposed terms from the switch [Figure 2 «items 208, 214»]. If the terminal application accepts, the applications behavior is modified using the new bandwidth terms.

Applicant also discusses various features of the present invention, and in particular, points out the invention “may do away with Buhrke because the ‘quality of service’ may be determined by the application itself without any interaction with a switch” [see Applicant’s arguments, page 7].

It should be noted that the claims do not represent this assertion. The amended claims merely disclose that there is a determination step performed at a currently-executing application and does not explicitly claim against interaction with another device as part of the determination process. The claims merely disclose that a determination must take place at the currently-executing application, as it does in Buhrke; Buhrke’s use of a switch as part of the determination process is not precluded by the claim language.

Rejections of dependent claims [Buhrke]

5> Contrary to Applicant’s arguments of claims 3 and 6, Buhrke discloses the terminal may modify its behavior by alternating sending “empty” (zero-length) cells then regular length cells based on network conditions [column 4 «lines 14-23»] thereby teaching a reduction or increase in the length of the cell.

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6> In regards to Applicants arguments of claims 4 and 7, as discussed by Applicant in his remarks, Buhrke discloses negotiating (reducing or increasing) the rate of transmission between the terminal application and the switch. The impact that the negotiation has on the terminal application is that a reduction, or increase, in the rate of transmission necessitates a reduction, or increase, in the rate at which the terminal application may retrieve data.

7> Contrary to Applicant's arguments of claim 5, Buhrke discloses dropping a virtual connection with the terminal application [column 6 «line 42-45»].

8> Contrary to Applicant's argument of claim 9, Buhrke discloses the terminal application changing the use of one or more virtual channels [column 6 «lines 55-60»].

Rejection of independent claims [as anticipated by Yamato]

9> Applicant asserts in substance similar arguments as was seen in the Buhrke rejection. In particular, Applicant asserts that the present invention "may do away with the need for Yamato's cell traffic regulation unit" [Applicant's arguments, page 9]. However, it seems the basis of the rejection was that Yamato's cell traffic regulation unit corresponds with claimed "currently executing application".

Here, Applicant's amendment also does not substantially distinguish the invention over Yamato's invention. The determination step of modifying the cell traffic regulation unit's behavior is done at the regulation unit itself [column 8 «lines 42-60»].

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10> Based on the preceding remarks, Applicant's arguments are not persuasive, and the prior art rejections set forth in the previous action, filed 7.25.2005, are maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11> Claims 1- 7, 9-12, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Buhrke et. al. (US 5,280,470).

12> In regards to claim 1 and 23, Buhrke et al. discloses a method of improving traffic management in a network, comprising steps of:

- a. detecting a changed environmental condition (e.g. virtual channel request- col. 5 ll. 1-3, establishment of virtual channel, col. 5 ll. 34, rate of active cells- col. 5 ll. 35);
- b. generating notification of the detected condition (e.g. message with number of channels – col. 5 ll. 11-12, load reduction request- col. 5 ll. 37, column 6 «lines 21-26»)
- c. analyzing the generated notification by consulting one or more criteria (e.g. analyses whether value of N_1/N_2 is acceptable- col. 5 ll. 20-21, analyzes load reduction request -col. 5 ll. 35)

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d. determining, at a currently executing application, based on the analysis, whether the currently executing application should modify a behavior of the currently-execution application (e.g. determining whether to accept or reject number of channels col. 5 ll. 20-24, determining whether to increase or decrease a factor col. 5 ll. 44-46)

13> In regards to claim 2, Buhrke et al. discloses the method according to claim 1, further comprising the step of modifying, by the currently-executing application, the behavior of the currently executing application (e.g. modifying the request levels col. 5 ll. 20-24, reducing or increasing the factor col. 5 ll. 44-46, column 6 «lines 21-26» - reducing bandwidth)

14> In regards to claim 3, Buhrke et al. discloses the method according to claim 2, wherein the modification comprises reducing the size of one of more data objects generated by the currently executing application [e.g. reduce rate of cells, lower bucket, reduce bandwidth virtual channel col. 5 ll. 35-400, col. 611-20 & column 4 «lines 17-19»].

15> In regards to claim 4, Buhrke et al. discloses the method according to claim 2 wherein the modification comprises reducing data retrieval by the currently-executing application (e.g. decreasing the N_2 factor col. 5 ll. 46-47)

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16> In regards to claim 5, Buhrke et al. discloses the method according to claim 2, wherein the modification comprises dropping one or more connections with the currently executing application (e.g. disconnection of a virtual channel, col. 6 ll. 33-49)

17> In regards to claim 6, Buhrke et al. discloses the method according to claim 2, wherein the modification comprises increasing a sized of one of more data objects generated by the currently-executing application (e.g. increasing the number of virtual channels, hence increasing the load col. 6 ll. 2-8).

18> In regards to claim 7, Buhrke et al. discloses the method according to claim 2, wherein the modification comprises increasing data retrieval by currently-executing application (e.g. increasing the N₁ Factor col. 5 ll. 44-47).

19> In regards to claim 9, Buhrke et al. discloses the method according to claim 2, wherein the modification comprises changing the currently-executing applications use of one or more other applications (e.g. execution of a slow down process col. 6 ll. 55-60).

20> In regards to claim 10, Buhrke et al. discloses the method of claim 1, wherein the changed environmental condition (e.g. virtual channel exceeds rate-col. 6 ll. 34-35) pertains to system-related conditions (e.g. switch detection of excess rate col. 6 ll. 33-40).

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21> In regards to claim 11, Buhrke et al. discloses the method of claim 1, wherein the changed environmental condition pertains to network related conditions (e.g. detecting load on the network col. 34-47).

22> In regards to claim 12, Buhrke et al. discloses the method of claim 1, wherein environmental condition (e.g. pertains to client related conditions in one or more clients (terminal, switch) of the currently executing application (col. 34-47)

23> Claims 1 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamato et al. (US 5,835,484).

24> In regards to claim 1, Yamato et al. discloses a method of improving traffic management in a network, comprising steps of:

- a. detecting a changed environmental condition (e.g. detecting violations in environment, congestion state col. 6 ll. 30-35, col. 6 ll. 45-55, col. 12 ll. 15) ;
- b. generating notification of the detected condition (e.g. notify of violation col. 12 ll. 17-19, col. 12 ll. 59-60)
- c. analyzing the generated notification by consulting one or more criteria (analyzing and consulting monitoring parameters, col. 12 ll. 1. 33-39)
- d. determining, at a currently executing application, based on the analysis, whether the currently executing application should modify a behavior of the

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currently-execution application (e.g. determination to modify application monitoring parameters col. 12 ll. 34-40).

25> In regards to claim 13, Yamato et al. discloses the method according to claim 1. Burke is silent on herein the changed environmental condition occurred internally in to a system in which the currently executing application is executing (col. 7 ll. 40-45, system of fig 1).

26> In regards to claim 14, Yamato et al. discloses the method according to claim 13 wherein the generated notification pertains to a condition of a local network protocol stack (condition indicator within a payload field of a header-31 where the indicator is used to determine existence of condition; if condition exists a notification is sent col. 7 ll. 20-39, col. 8 ll. 10-15,abs).

27> In regards to claim 15, Yamato et al. discloses the method according to Claim 13, wherein the generated notification pertains to a condition of the system in which the currently executing (execution of a program for monitoring connection-121, col. 5 ll. 53-60) application is executing.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art

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are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28> Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buhrke et. al. (US 5,280,470) in view of Nahidipour et al. (US 5,983,723)

29> In regards to claim 8 Buhrke et al. discloses the method according to claim 2.

Buhrke is silent on wherein modification comprises changing thread assignments of the currently executing application

Nahidipour et al. discloses changing thread assignments (e.g. reducing threads) of a currently executing application in order to ensures improved data transfer efficiency, lower utilization of system resources, and memory (col. 5 ll. 45-56.).

It would be obvious to one of ordinary skill in the art at the time of the invention to modify Buhrke et al. by changing thread assignments (e.g. reducing threads) of a currently executing application, as taught by Nahidipour et al. in order to ensures improved data transfer efficiency, lower utilization of system resources, and memory as number of threads for system calls is reduced (col. 5 ll. 45-56. col. 8 ll. 37-43)

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

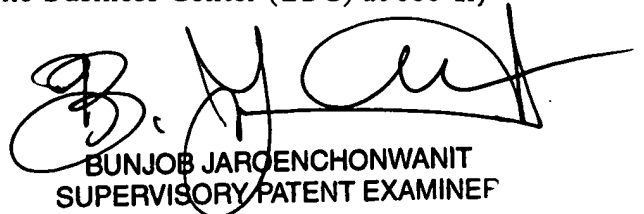
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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is 571.272.3942. The examiner can normally be reached on Monday-Thursday [7:00 AM to 5:00 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER

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